

WHAT IS CLAIMED IS:

1. A solder-resist film formation method for forming a solder-resist film on a circuit board having patterned circuit conductor parts at least on one face thereof, comprising the  
5 steps of

forming a resin layer between said neighboring circuit conductor parts by applying a liquid-phase curable resin so as to fill grooves between the neighboring circuit conductor parts and

10 forming a solder-resist film by applying a solder resist to the circuit board having the resin layer.

2. The solder-resist film formation method according to the claim 1, wherein the solder resist is a water-based solder resist.

15 3. The solder-resist film formation method according to the claim 1, wherein the thickness of the circuit conductor parts is 100  $\mu\text{m}$  or thicker.

4. The solder-resist film formation method according to the claim 1, wherein the liquid-phase curable resin is applied  
20 so as to fill the grooves using only a squeegee without using a printing plate.

5. The solder-resist film formation method according to the claim 1, wherein the step of forming the resin layer includes a step of forming a resin layer by applying the liquid-phase  
25 curable resin and then curing the resin and a step of removing

the resin layer remaining on the circuit conductor parts by polishing the surface of the circuit board.

6. The solder-resist film formation method according to the claim 5, wherein the solder resist is a water-based solder  
5 resist.

7. The solder-resist film formation method according to the claim 5, wherein the thickness of the circuit conductor parts is 100  $\mu\text{m}$  or thicker.

8. The solder-resist film formation method according to  
10 the claim 5, wherein the liquid-phase curable resin is applied so as to fill the grooves using only a squeegee without using a printing plate.

9. A solder-resist film formation method for forming a solder-resist film on a circuit board having patterned circuit  
15 conductor parts at least on one face thereof, comprising the steps of

forming a resin layer by applying a liquid-phase curable resin to a circuit board in a state that an etching resist film used for patterning remains on circuit conductor parts, so as  
20 to fill grooves between the neighboring circuit conductor parts and curing the liquid-phase curable resin;

removing the etching resist film remaining on the surface of the circuit conductor parts together with the resin layer;  
and

25 forming a solder-resist film by applying a solder resist

to the circuit board.

10. The solder-resist film formation method according to the claim 9, wherein the solder resist is a water-based solder resist.

5           11. The solder-resist film formation method according to the claim 9, wherein the thickness of the circuit conductor parts is 100  $\mu\text{m}$  or thicker.

12. The solder-resist film formation method according to the claim 9, wherein the liquid-phase curable resin is  
10 applied so as to fill the grooves using only a squeegee without using a printing plate.